

AMENDMENTS TO THE CLAIMS

1-41. (Canceled)

42. (Currently amended) A computer[[machine]]-implemented method for managing event-condition-action rules in a database system, the method comprising the computer-implemented steps performed by said database system of:

storing, in a database managed by said database system, rule data that defines a composite event comprised of two or more primitive events, at least one condition related to the composite event, and at least one action to be performed upon satisfaction of said at least one condition;

detecting a first database event as an occurrence of a first one of the primitive events;

determining whether the first database event satisfies a first sub-condition of said at least one condition, wherein said rule data indicates that satisfaction of said first sub-condition is not sufficient to satisfy said at least one condition;

persistently storing in the database results data that indicates that said first sub-condition was satisfied by said first database event;

detecting a second database event as an occurrence of a second one of the primitive events;

reading said results data from said database; and

determining whether the at least one condition is satisfied based on the results data read from the database and the second database event.

43. (Previously presented) The method as recited in Claim 42, further comprising: determining that the at least one condition is satisfied by determining that the second database event was detected within a particular time after detecting the first database event.

44. (Previously presented) The method as recited in Claim 42, further comprising: determining that the at least one condition is satisfied by determining that the second database event was not detected within a particular time after detecting the first database event.

45. (Canceled)
46. (Canceled)
47. (Previously Presented) The method as recited in Claim 42, further comprising:
deleting the persistently stored result from the database after a period of time indicated by
the at least one condition.
48. (Previously presented) The method as recited in Claim 42, further comprising:
determining that the at least one condition is satisfied based on the results data read from
the database and the second database event; and
performing the at least one action.
49. (Previously presented) The method as recited in Claim 42, wherein the composite event
comprised of two or more primitive events, the at least one condition related to the
composite event, and the at least one action are specified in an expression received by the
database system, the expression identifying two or more primitive event structures, a join
condition on the two or more primitive events, and the at least one action to perform in
response to satisfying the join condition.
50. (Previously Presented) The method as recited in Claim 49, where the expression is
specified using XML-extended SQL syntax.
51. (Currently amended) A computer-readable volatile or non-volatile storage medium for
managing event-condition-action rules in a database system comprising one or more
sequences of instructions which, when executed by a processor of said database system,
cause the processor to perform:
storing, in a database managed by said database system, rule data that defines a
composite event comprised of two or more primitive events, at least one condition
related to the composite event, and at least one action to be performed upon
satisfaction of said at least one condition;

detecting a first database event as an occurrence of a first one of the primitive events; determining whether the first database event satisfies a first sub-condition of said at least one condition, wherein said rule data indicates that satisfaction of said first sub-condition is not sufficient to satisfy said at least one condition; persistently storing in the database results data that indicates that said first sub-condition was satisfied by said first database event; detecting a second database event as an occurrence of a second one of the primitive events reading said results data from said database; and determining whether the at least one condition is satisfied based on the results data read from the database and the second database event.

52. (Previously presented) The computer-readable medium as recited in Claim 51, further comprising instructions for:
determining that the at least one condition is satisfied by determining that the second database event was detected within a particular time after detecting the first database event.

53. (Previously presented) The computer-readable medium as recited in Claim 51, further comprising instructions for:
determining that the at least one condition is satisfied by determining that the second database event was not detected within a particular time after detecting the first database event.

54. (Canceled)

55. (Canceled)

56. (Previously Presented) The computer-readable medium as recited in Claim 51, further comprising instructions for:
deleting the persistently stored result from the database after a period of time indicated by the at least one condition.

57. (Previously presented) The computer-readable medium as recited in Claim 51, further comprising instructions for:
determining that the at least one condition is satisfied based on the results data read from the database and the second database event; and
performing the at least one action.
58. (Previously presented) The computer-readable medium as recited in Claim 51, wherein the composite event comprised of two or more primitive events, the at least one condition related to the composite event, and the at least one action are specified in an expression received by the database system, the expression identifying two or more primitive event structures, a join condition on the two or more primitive events, and the at least one action to perform in response to satisfying the join condition.
59. (Previously Presented) The computer-readable medium as recited in Claim 58, wherein the expression is specified using XML-extended SQL syntax.
60. (Currently amended) The computer[[machine]]-implemented method of Claim 42, wherein said first sub-condition is a condition on one or more attributes of said first one of the primitive events of which said first database event is an occurrence of.
61. (Previously presented) The computer-readable medium as recited in Claim 51, wherein said first sub-condition is a condition on one or more attributes of said first one of the primitive events of which said first database event is an occurrence of.